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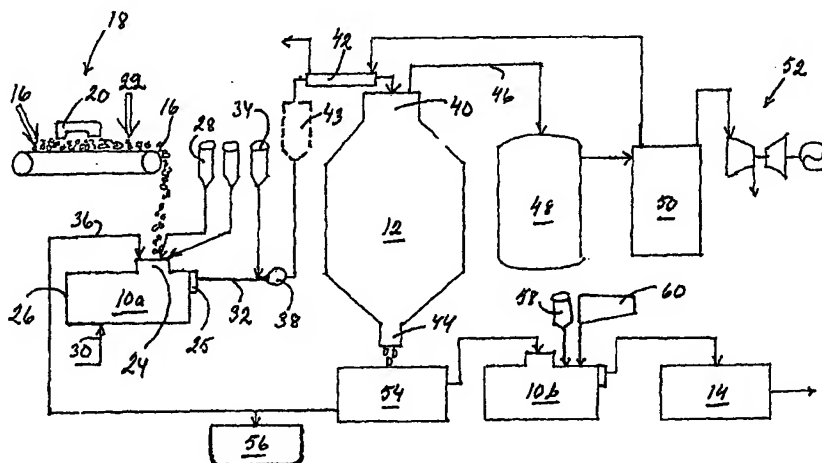
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(54) Title: METHOD AND DEVICE FOR DISINTEGRATION OF ORGANIC MATERIAL AND USE OF THE DEVICE



(57) Abstract: A method and apparatus for biological and/or chemical decomposition of waste containing organic matter. The method comprises waste pretreatment in which the waste is fragmented and homogenised in a pretreatment apparatus (10a, 10b) operating on the principle of a multi-ring double action impact mill. The apparatus consists of either two rotors (62, 64) or a rotor and stator disposed inside a housing (26), which rotors and/or stator are equipped with blades (1a, b, c, ... 2a, b, c, ...) having impact surfaces (a', b', c', ...), and which form one or more, typically at least two rings (1, 2, 3, ...) coaxial with the rotor. The waste is fed into the housing through the hub of rings formed by the blades, from where the waste is arranged to travel by the effect of a rotor or rotors, to the outer ring of the ring (7) formed by the outermost blades, and further to the discharge opening (25, 27) in the outer ring.

WO 2004/062808 A1

INTERNATIONAL SEARCH REPORT

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PCT/FI 2003/000983

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: B02C 13/22, C02F 11/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: B02C, C02F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI DATA, EPO-INTERNAL, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE WPI Week 200225 Derwent Publications Ltd., London, GB Class P41, AN 2001-085387 & JP 3270748 B2 (SHODA Y), 02 April 2002 (2002-04-02) figures; abstract	1,2,13,14,19
A	--	3-12,15-18
X	US 6202946 B1 (HANNU VIRTANEN), 20 March 2001 (20.03.2001), column 1, line 11, figures 1,2, claims 1-11, abstract	13
A	--	1-12,14-19

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 891152 A (PETER WILLEMS), 14 March 1962 (14.03.1962), page 6, line 18 - line 21, figures 1-3, claims 1-40 --	13,14
P,A	WO 03035558 A2 (UNIVERSITY OF FLORIDA RESEARCH FOUNDATION INCORPORATED), 1 May 2003 (01.05.2003), paragraph (0036); figure 1; claims 1-50; abstract --	1-19
P,A	EP 1346956 A1 (GENIX ENGINEERING, INC. ET AL), 24 Sept 2003 (24.09.2003), figures 1-3, claims 1-6, abstract --	1-19
P,A	EP 1300195 A1 (NARA MACHINERY CO., LTD.), 9 April 2003 (09.04.2003), paragraph (0001), (0031), (0037); figure 2 -- -----	1-19

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Information on patent family members

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